# M10a Preflare phase における磁気アーケードの進化について

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There are observed ejecting masses associated with eruptive flares. For example, Shibata et al. (1995) searched and confirmed such ejecting masses associated with compact flares by using the data of Yohkoh. Theoretically-computational work about these erupted phenomena have been also done and found in Mikic, Barnes, and Schnack (1988), Biskamp and Welter (1989), and so on . These papers studied how the coronal magnetic field evolved under those situations where the shearing or converging motion was imposed in the photosphere. As these motions proceed, the coronal magnetic field is distorted and inflated, and finally the magnetic reconnection occurs in the current sheet, leading to the mass ejection. These flow-induced models for eruptive flares give a good explanation for the observed eruptive processes, however, there is another important factor which Biskamp and Welter (1989) discussed in their conclusions. They pointed out that the spontaneous resistive processes might develop in the current sheet, which caused the eruptive phenomena. Moreover, from observational side, Ohyama and Shibata (1997) recently showed that a significant heating took place before the eruption in some eruptive flare (preflare heating). Therefore, it is important to investigate the features of the resistive processes in the current sheet, causing a significant heating in the preflare phase.